

3.2. Loop Distribution Media

3.2.1. Definition:

Loop Distribution Media provides connectivity between the NID and the terminal block on the customer-side of a Feeder Distribution Interface (FDI). The FDI is a device that terminates the Loop Distribution Media and the Loop Feeder, and cross-connects them in order to provide a continuous transmission path between the NID and a telephone company central office.

3.2.1.1. In some instances, AT&T may request and GTE will provide, to the extent Currently Available, a copper twisted pair Distribution Media in instances where the Loop Distribution Media for services that GTE offers is other than a copper facility.

3.2.2. GTE will provide to AT&T Loop Distribution Media of the same condition that exists for the current GTE customer.

3.2.3. GTE is not responsible for the end to end performance of the entire loop when GTE provides only the Loop Distribution Media.

3.2.4. The Loop Distribution Media provided under this Agreement shall meet or exceed the applicable interface references set forth in the technical references listed in Appendix A to this Attachment 2 under paragraph 2 thereof.

3.2.5. The Loop Distribution Media may be ordered by AT&T through the Bona Fide Request procedures outlined in Attachment 12. The request shall specify the technical requirements for the Loop Distribution Media.

3.2.6. GTE shall perform all cross connections to the FDI as AT&T may request from time to time in order to provide Network Elements to AT&T in accordance with this Agreement. Since GTE will be performing all necessary cross connections within the FDI and at the main distribution frame, AT&T agrees that there will be no requirement for personnel of AT&T to access the FDI or the serving wire center to the extent that AT&T has no equipment collocated in the GTE central office.

3.2.7. AT&T shall be responsible for the costs (if any) required to create an interface at the main distribution frame if such interface does not already exist, such as in the case of an Integrated Digital Loop Carrier System, as specified in Attachment 14.

3.3. Loop Concentrator/Multiplexer

3.3.1. Definition:

The Loop Concentrator/Multiplexer is the Network Element that: (1) aggregates lower bit rate or bandwidth signals to higher bit rate or bandwidth signals (multiplexing); (2) disaggregates higher bit rate or bandwidth signals to lower bit rate or bandwidth signals (demultiplexing); (3) aggregates a specified number of signals or channels to fewer channels (concentrating); (4) performs signal conversion, including encoding of signals (e.g., analog to digital and digital to analog signal conversion); and (5) in some instances performs electrical to optical (E/O) conversion.

The Loop Concentrator/Multiplexer function will be provided through a Digital Loop Carrier (DLC) system, channel bank, multiplexer or other equipment at which traffic is encoded and decoded, multiplexed and demultiplexed, or concentrated.

3.3.2. GTE is not responsible for the end to end performance of the entire loop when GTE provides only the Loop Concentrator/Multiplexer.

3.3.3. The Loop Concentrator/Multiplexer provided under this Agreement shall, subject to Section 23.19 of the General Terms and Conditions of this Agreement, meet or exceed the applicable interface references set forth in Appendix A to this Attachment 2, under paragraph 2 thereof.

3.3.4. The Loop Concentrator/Multiplexer may be ordered by AT&T through the Bona Fide Request procedures outlined in Attachment 12. The request shall specify the technical requirements for the Loop Concentrator/Multiplexer.

3.4. Loop Feeder

3.4.1. Definition:

3.4.2. The Loop Feeder is the Network Element that provides connectivity between (1) a FDI associated with Loop Distribution Media and a termination point appropriate for the media in a central office, or (2) a Loop Concentrator/Multiplexer provided in a remote terminal and a termination point appropriate for the media in a central office. Since GTE will be performing all necessary cross connections within the FDI and the main distribution frame, there will be no requirement for personnel of AT&T to access the FDI or the serving wire center to the extent that AT&T has no equipment collocated in the GTE central office.

- 3.4.3. In certain cases, AT&T may request and GTE will provide to the extent Currently Available a copper twisted pair loop even in instances where the medium of the Loop Feeder for services that GTE offers is other than a copper facility.
- 3.4.4. The Loop Feeder provided under this Agreement shall meet or exceed the applicable interface technical references listed in Appendix A to this Attachment 2, under paragraph 2 thereof.
- 3.4.5. The Loop Feeder may be ordered by AT&T through the Bona Fide Request procedures outlined in Attachment 12. The request shall specify the technical requirements for the Loop Feeder.
- 3.4.6. GTE is not responsible for the end performance of the entire loop when GTE provides only the Loop Feeder.
- 3.5. Other Sub-Loop Terms and Conditions
 - 3.5.1. GTE agrees to provide access to the sub-loop network elements at the Feeder Distribution Interface (FDI), based on the following conditions:
 - 3.5.2. AT&T agrees to pay GTE to expand or replace the FDI (over and above the established price of the basic loop) to accommodate terminating the new AT&T cable.
 - 3.5.3. AT&T agrees to pay GTE an agreed upon charge to perform all cross connections within the GTE FDI (in addition to the price of the basic sub-loop network element(s) leased by AT&T).
 - 3.5.4. AT&T agrees that since all cross connects will be performed by GTE personnel, AT&T personnel will not require access to the FDI.

4. Local Switching

4.1. **Definition:**

Local Switching is the Network Element that provides the functionality required to connect the appropriate originating lines or trunks wired to the Main Distributing Frame (MDF) or Digital Signal Cross Connect (DSX) panel to a desired terminating line or trunk. Such functionality shall include all of the features, functions, and capabilities of the GTE switch including but not limited to: line signaling and signaling software, digit reception, dialed number translations, call screening, routing, recording, call supervision, dial tone, switching, telephone number provisioning, announcements,

calling features and capabilities (including call processing), CENTRANET, Automatic Call Distributor (ACD), Carrier pre-subscription (e.g., long distance carrier, intraLATA toll), Carrier Identification Code (CIC) portability capabilities, testing and other operational features inherent to the switch and switch software. Local Switching provides access to transport, signaling (ISDN User Part (ISUP) and Transaction Capabilities Application Part (TCAP), and platforms such as adjuncts, Public Safety Systems (911), operator services, directory services and Advanced Intelligent Network (AIN). Remote Switching Module functionality is included in the Local Switching function. The switching capabilities used will be based on the line side features they support, where Currently Available. Local Switching will also be capable of routing local directory assistance and operator services calls to alternative directory assistance and operator services platforms.

- 4.1.1. Where Currently Available Local Switching also includes Data Switching, which provides for ISDN Packet and Circuit Switched Data service, the data switching functionality that is required to connect between industry standard ISDN interfaces. In this case, the purpose of Data Switching is to terminate, concentrate, and switch data traffic from Customer Premises Equipment (CPE) in the digital format consistent with ISDN standards. Data Switching also provides connectivity for the purpose of conveying the customer data to its final destination.
- 4.2. **Technical References** (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

The technical references set forth in this Section 4.2 apply to Local Switching.
- 4.2.1. GTE shall offer to AT&T unbundled access to all facilities, functions, features and capabilities of its local switches to the extent each such facility, function, feature or capability is Currently Available within the applicable switch and GTE has the right to use such facility, function, feature or capability.
- 4.2.1.1. Where Currently Available, GTE shall offer Local Switching together with and separately from Data Switching.
- 4.2.1.2. When applicable, GTE shall route calls to the appropriate trunk or lines for call origination or termination.
- 4.2.1.3. GTE shall route local directory assistance and operator services calls on a per line or per screening class basis to (1) GTE platforms

providing Network Elements or additional requirements, (2) AT&T designated platforms, or (3) third-party platforms.

- 4.2.1.4. GTE shall provide standard recorded announcements as designated by AT&T and call progress tones to alert callers of call progress and disposition.
- 4.2.1.5. GTE shall activate service for an AT&T Customer or network interconnection on any of the Local Switching interfaces. This includes provisioning changes to change a customer from GTE's services to AT&T's services without loss of feature functionality.
- 4.2.1.6. GTE shall perform routine testing (e.g., Mechanized Loop Tests (MLT) and test calls such as 105, 107 and 108 type calls) and fault isolation on a mutually agreed to schedule where such testing is Currently Available.
- 4.2.1.7. GTE shall repair and restore any equipment or any other maintainable component owned by or under the control of GTE that may adversely impact Local Switching.
- 4.2.1.8. GTE shall control congestion points such as those caused by radio station call-ins, and network routing abnormalities, using capabilities such as Automatic Call Gapping, Automatic Congestion Control, and Network Routing Overflow.
- 4.2.1.9. GTE shall perform call trace (manual or otherwise) consistent with the other provisions of testing, maintenance and repair sections of this Agreement (including, but not limited to Attachments 2, 4 and 5 to this Agreement). GTE shall permit customer originated call trace in accordance with Attachment 9 to this Agreement.
- 4.2.1.10. GTE shall record billable events and send the appropriate billing data to AT&T as outlined in Attachment 6.
- 4.2.1.11. For Local Switching used as 911 Tandems, GTE shall allow interconnection from AT&T local switching elements and GTE shall route the calls to the appropriate Public Safety Access Point (PSAP).
- 4.2.1.12. GTE shall provide where the switch is capable, each of the following capabilities:
- 4.2.1.13. Essential Service Lines;

- 4.2.1.14. Telephone service prioritization;
- 4.2.1.15. Telephone Relay Services for handicapped;
- 4.2.1.16. Soft dial tone where required by law; and
- 4.2.1.17. Any other capability required by law.
- 4.2.1.18. GTE shall provide Switching Service Point (SSP) capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch (STPS). In the event that Local Switching is provided out of a switch without SS7 capability, the Tandem shall provide this capability as discussed in the section on Tandem Switching. These capabilities shall adhere to Bellcore specifications - TCAP (GR-1432-CORE), ISUP (GR-905-CORE), Call Management (GR-1429-CORE), Switched Fractional DS1 (GR-1357-CORE), Toll Free Service (GR-1428-CORE), Calling Name (GR-1597-CORE), Line Information Database (GR-954-CORE), and Advanced Intelligent Network (GR-2863-CORE). A further description of AIN is set forth in Sections 4.2.1.26.1 and 4.2.1.26.2 of this Attachment 2.
- 4.2.1.19. GTE shall provide interfaces to adjuncts through industry standard and Bellcore interfaces. These adjuncts can include, but are not limited to, the Service Circuit Node and Automatic Call Distributors. Examples of existing interfaces are ANSI ISDN standards Q.931 and Q.932.
- 4.2.1.20. GTE shall provide performance data regarding a customer line, traffic characteristics or other measurable elements to AT&T to the extent that it provides that information to itself.
- 4.2.1.21. GTE shall offer Local Switching that provides feature offerings at parity to those provided by GTE to itself or any other party. Such feature offerings, where available, shall generally include but not be limited to:
- 4.2.1.22. Basic and primary rate ISDN;
- 4.2.1.23. Residential features;
- 4.2.1.24. Customer Local Area Signaling Services (CLASS/LASS);

- 4.2.1.25. CENTRANET (including equivalent administrative capabilities, such as customer accessible reconfiguration and detailed message recording); and
- 4.2.1.26. Advanced intelligent network triggers supporting AT&T features. GTE shall offer to AT&T all subscribed or end-user specific AIN triggers to the extent technically feasible, and Currently Available to GTE for offering AIN-based services in accordance with the applicable technical references listed in Appendix A to this Attachment 2, under paragraph 3 thereof, subject to Section 23.19 of the General Terms and Conditions of this Agreement.
- 4.2.1.26.1. When AT&T utilizes GTE's Local Switching network element and requests GTE to provision such network element with a Currently Available subscribed or end end-user specific AIN trigger, GTE will provide access to the appropriate AIN Call Related Database for the purpose of invoking either a GTE AIN feature or an AIN feature developed by AT&T through use of GTE's SCE/SMS under Section 11.7 below, provided, however, that GTE is not required to allow SS7 advanced intelligent access from AT&T's SCP to GTE's switch to invoke an AT&T-developed AIN feature, until testing and security concerns regarding the reliability of service to GTE's end users have been addressed, either through industry forums or successful testing.
- 4.2.1.26.2. When AT&T utilizes its own local switch, GTE will provide access to the appropriate AIN Call Related Database for the purpose of invoking either a GTE AIN feature or an AIN feature developed by AT&T through use of GTE's SCE/SMS under Section 11.7 below, provided, however, that GTE is not required to allow such use until testing and security concerns regarding the reliability of service to GTE's end users have been addressed, either through industry forums or successful testing.
- 4.2.1.27. Upon AT&T's request, GTE shall assign each AT&T Customer line the class of service designated by AT&T (e.g., using line class codes or other switch specific provisioning methods), and shall terminate Directory Assistance traffic onto the dedicated AT&T trunks previously identified by AT&T for this purpose.
- 4.2.1.28. Upon AT&T's request, GTE shall assign each AT&T Customer line the class of services designated by AT&T (e.g., using line class codes or other switch specific provisioning methods) and shall route operator calls from AT&T Customer to AT&T operators at AT&T's option. Where technically feasible, GTE shall route local

Operator Services calls (0+, 0-) dialed by AT&T Customers directly to the AT&T Local Operator Services platform, unless AT&T requests otherwise pursuant to Section 28.7.1. Such traffic shall be routed over trunk groups specified by AT&T which connect GTE end offices and the AT&T Local Operator Services platform, using standard Operator Services dialing protocols of 0+ or 0-. Where intraLATA presubscription is not available, GTE will provide the functionality and features within its local switch (LS), to route AT&T Customer dialed 0- and 0+ IntraLATA calls to the AT&T designated line or trunk on the Main Distributing Frame (MDF) or Digital Cross Connect (DSX) panel via Modified Operator Services (MOS) Feature Group C signaling. Where IntraLATA presubscription is available, AT&T Customer dialed 0- and 0+ intraLATA calls will be routed to the intraLATA PIC carrier's designated operator services platform. In all cases, GTE will provide post-dial delay at no greater than that provided by GTE for its end user customers. AT&T shall pay GTE's costs, if any, pursuant to the pricing standards of Section 252(d) of the Act, and in such amounts or levels as determined by the Commission for implementation of such routing.

- 4.2.1.29. If AT&T requests the termination of Local Switching, GTE shall promptly remove the class of service assignment from the line.
- 4.2.1.30. If an AT&T Customer subscribes to AT&T provided voice mail and messaging services, GTE shall redirect incoming calls to the AT&T system based upon presubscribed service arrangements (e.g., busy, don't answer, number of rings). GTE shall also provide to AT&T for purposes of AT&T providing voice mail to AT&T Local Service Customers, interfaces applicable to the provision of voice mail services that are Currently Available in GTE's network. Nothing in this section shall limit or change the obligations or rights of either Party under Section 26.7 of Part I of this Agreement (Local Service Resale).
- 4.2.1.31. Local Switching shall be offered in accordance with the technical references listed in Appendix A to this Attachment 2, under paragraph 3 thereof.
- 4.2.2. Interface References (subject to Section 23.19 of the General Terms and Conditions of this Agreement):
 - 4.2.2.1. GTE shall, subject to Section 23.19 of the General Terms and Conditions of this Agreement, provide the following interfaces (i.e., ports) to loops:

- 4.2.2.2. Standard Tip/Ring interface including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);
- 4.2.2.3. Coin phone signaling;
- 4.2.2.4. Basic Rate Interface ISDN;
- 4.2.2.5. Two-wire analog interface to PBX;
- 4.2.2.6. Four-wire analog interface to PBX;
- 4.2.2.7. Four-wire DS1 interface to PBX or customer provided equipment (e.g. computers and voice response systems);
- 4.2.2.8. Primary Rate ISDN to PBX;
- 4.2.2.9. Switched Fractional DS1 with capabilities to configure Nx64 channels (where N = 1 to 24); and
- 4.2.2.10. GTE shall, where Currently Available, provide access to the following:
- 4.2.2.11. SS7 Signaling Network or Multi-Frequency trunking if requested by AT&T;
- 4.2.2.12. Interface to AT&T operator services systems or Operator Services through appropriate trunk interconnections for the system; and
- 4.2.2.13. Interface to AT&T directory assistance services through the AT&T switched network or to Directory Services through the appropriate trunk interconnections for the system; and 950 access or other AT&T required access to interexchange carriers as requested through appropriate trunk interfaces.
- 4.2.2.14. Interfaces to Loops provided under this Agreement shall meet or exceed the applicable interface references set forth in the technical references listed in Appendix A to this Attachment 2, under paragraph 4 thereof.

4.3. **Integrated Services Digital Network (ISDN)**

Integrated Services Digital Network (ISDN) is defined in two variations. The first variation is Basic Rate ISDN (BRI). BRI consists of 2 Bearer (B) Channels and one Data (D) Channel. The

second variation is Primary Rate ISDN (PRI). PRI consists of 23 B Channels and one D Channel. Both BRI and PRI B Channels may be used for voice, Circuit Switched Data (CSD) or Packet Switched Data (PSD). The BRI D Channel may be used for call related signaling, non-call related signaling or packet switched data. The PRI D Channel may be used for call related signaling.

4.3.1. Technical References - ISDN (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

4.3.1.1. Where available, GTE shall offer Data Switching providing ISDN that:

4.3.1.2. Provides integrated packet handling capabilities;

4.3.1.3. Allows for full 2B+D Channel functionality for BRI; and.

4.3.1.4. Allows for full 23B+D Channel functionality for PRI.

4.3.1.5. In the case of Each B Channel, allows for voice, 64Kbs CSD, and PSD of 128 logical channels at minimum speeds of 19Kbs throughput of each logical channel up to the total capacity of the B Channel.

4.3.1.6. In the case of Each B Channel, provides capabilities for alternate voice and data on a per call basis.

4.3.1.7. In the case of the BRI D Channel, allows for call associated signaling, non-call associated signaling and PSD of 16 logical channels at minimum speeds of 9.6 Kbs throughput of each logical channel up to the total capacity of the D channel.

4.3.1.8. In the case of the PRI D Channel, allows for call associated signaling.

4.3.2. Interface References - ISDN (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

4.3.2.1. GTE shall provide the BRI U interface using 2 wire copper loops.

4.3.2.2. GTE shall provide the BRI interface using Digital Subscriber Loops.

4.3.2.3. GTE shall offer PSD interfaces.

4.3.2.4. GTE shall offer PSD trunk interfaces operating at 56Kbs.

- 4.3.2.5. Interfaces to Loops for ISDN requirements provided under this Agreement shall meet or exceed the applicable interface references set forth in the technical references listed in Appendix A to this Attachment 2, under paragraph 5 thereof.

5. Operator Service

- 5.1. [Intentionally Deleted]

5.1.1. Definition.

Operator Service provides where Currently Available: (1) operator handling for call completion (for example, collect, third number billing, and manual credit card calls), (2) operator or automated assistance for billing after the customer has dialed the called number; and (3) special services including Busy Line Verification and Emergency Line Interrupt (ELI), Emergency Agency Call, Operator-assisted Directory Assistance, and Rate Quotes.

- 5.1.2. References (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

- 5.1.2.1. Operator Services for calls which are routed from the local switch shall include but not be limited to the following, where Currently Available:

- 5.1.2.2. Completion of 0+ and 0- dialed local calls.

- 5.1.2.3. Completion of 0+ and 0- intraLATA toll calls.

- 5.1.2.4. Completion of calls that are billed to a GTE calling card and that use the same types of billing that are available to GTE customers. The Parties shall agree on the acceptable types of special billing.

- 5.1.2.5. Completion of person-to-person calls.

- 5.1.2.6. Completion of collect calls.

- 5.1.2.7. Provision of the capability for callers to bill to a third party and complete such calls.

- 5.1.2.8. Completion of station-to-station calls.

- 5.1.2.9. Processing emergency calls.

- 5.1.2.10. Processing Busy Line Verify and Emergency Line Interrupt requests.
- 5.1.2.11. Processing emergency call trace.
- 5.1.2.12. Processing of operator-assisted directory assistance calls in the same manner as GTE provides such service for GTE customers.
- 5.1.2.13. GTE shall provide rate quotes and process time-and-charges requests on 0- calls, and shall provide AT&T's rates, when the capability to provide rates other than GTE's is Currently Available.
- 5.1.2.14. Routing of 0- traffic directly to a "live" operator team.
- 5.1.2.15. Operator Services provided by GTE to AT&T local service customers under this Agreement will be customized exclusively for AT&T, where technically feasible, at rates specified in, or as to be determined pursuant to, Attachment 14.
- 5.1.2.16. Provision of caller assistance for the handicapped at parity with what is provided under GTE's tariff.
- 5.1.2.17. [Intentionally deleted.]
- 5.1.2.18. [Intentionally deleted.]
- 5.1.2.19. Provision of notification of the length of call.
- 5.1.2.20. [Intentionally deleted.]
- 5.1.2.21. GTE shall exercise at least the same level of fraud control in providing Operator Service to AT&T that GTE provides for its own operator service.
- 5.1.2.22. Billed Number Screening when handling Collect, Person-to-Person, and Billed-to-Third-Party calls.
- 5.1.2.23. [Intentionally Deleted]
- 5.1.2.24. Direction of customer inquiries to a single, AT&T-designated customer service center.
- 5.1.2.25. [Intentionally deleted.]

- 5.1.2.26. GTE will offer AT&T a level of Operator Services which is at parity with what it provides itself. To the extent that the level of service GTE provides to its own customers exceeds any criterion, requirement or guideline set by the applicable state regulatory commission, GTE shall offer the same level of service to AT&T.
- 5.1.2.27. GTE will make all of its automation and other new technology related to the provision of Operator Services available to AT&T as soon as the benefit of such automation and other technology is available to GTE's end-users.
- 5.2. **Interface References** (subject to Section 23.19 of the General Terms and Conditions of this Agreement):
- With respect to Operator Services for calls that originate on local switching capability provided by or on behalf of AT&T, the interface requirements shall conform to the then current established system interface specifications for the platform used to provide Operator Service and the interface shall conform to industry standards.
6. **Directory Assistance Service**
- 6.1. **Definition:**
- Directory Assistance Service is a service that provides telephone number information to local end users that GTE serves on behalf of AT&T who dial 411, 1411 or 555-1212 to obtain directory assistance for local numbers within their NPA.
- 6.1.1. [Intentionally deleted.]
- 6.2. **Requirements:**
- 6.2.1. GTE shall offer Directory Assistance Service which allows AT&T Customers to obtain the same quantity of listings provided to similarly situated GTE customers.
- 6.2.2. Directory Assistance Service provided by GTE to AT&T local service customers under this Agreement will be customized exclusively for AT&T, where technically feasible, at rates specified in, or as to be determined pursuant to, Attachment 14.
- 6.2.3. GTE Directory Assistance Service will provide optional call completion service to AT&T Customers in areas where call completion denial is Currently Available; Call completion services shall be provided at parity with that which GTE provides to its own end users.

- 6.2.4. GTE shall provide data regarding billable events.
- 6.2.5. [Intentionally Deleted]
- 6.2.6. GTE shall ensure that any Directory Assistance information that is provided by ARU shall be repeated in the same manner as it is announced for GTE's end-users;
- 6.2.7. GTE Directory Assistance will provide emergency listings and related services to AT&T Customers at service levels equivalent to those provided to GTE Customers;
- 6.2.8. GTE Directory Assistance Services will include a service which intercepts calls placed to an AT&T Customer whose number has been disconnected or changed. GTE shall provide a recorded announcement to (i) notify a calling party that the end user customer has transferred to a new telephone number of AT&T and (ii) provide such calling party with details concerning the new telephone number to be dialed to reach the customer. GTE shall provide such announcement for the same length of time that GTE provides intercept or referral information for its customers that have changed telephone numbers.
- 6.2.9. [Intentionally deleted.]
- 6.2.10. Directory Assistance Service Updates
 - 6.2.10.1. GTE shall update the GTE DA database with AT&T customer listing changes daily. These changes include:
 - 6.2.10.2. New customer connections;
 - 6.2.10.3. Customer disconnections; and
 - 6.2.10.4. Customer changes, including but not limited to name, address and listing status.
 - 6.2.10.5. These updates shall also be provided for non-listed and non-published numbers for use in emergencies.

7. **Common Transport**

7.1. **Definition:**

Common (i.e. shared) transport is a transmission facility shared by more than one carrier, including GTE, between end office switches, between end office switches and tandem switches, and between tandem switches, in GTE's network.

Common transport shall be provided in conjunction with, but priced separately from, Local Switching and/or Tandem Switching. GTE shall not be required to provide transport other than Dedicated transport between any GTE switch and an AT&T interconnection point or between any GTE serving wire center (as that term is used in Para. 29 of the Third Order on Reconsideration, CC Docket No. 96-98) serving an AT&T interconnection point and any GTE switch.

7.2. **Technical References** (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

7.2.1. [Intentionally deleted.]

7.2.2. Common Transport provided on DS1 or VT1.5 circuits at the DS0 rate, shall, at a minimum, subject to Section 23.19 of the General Terms and Conditions of this Agreement, meet the performance, availability, jitter, and delay references specified for Central Office to Central Office "CO to CO" connections in the technical reference in Appendix A to this Attachment 2, under paragraph 6 thereof.

7.2.3. Common Transport provided on DS3 circuits, STS-1 circuits, and higher transmission bit rate circuits, Common Transport shall, at a minimum, subject to Section 23.19 of the General Terms and Conditions of this Agreement, meet the performance, availability, jitter, and delay references specified for Central Office to Central Office "CO to CO" connections in the technical reference set forth in Appendix A to this Attachment 2, under paragraph 6 thereof.

7.2.4. GTE shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.

7.2.5. Common Transport shall, subject to Section 23.19 of the General Terms and Conditions of this Agreement, meet all of the technical references in Appendix A to this Attachment 2, under paragraph 6 thereof (as applicable for the transport technology being used).

8. Dedicated Transport

8.1. Definition:

Dedicated Transport is an interoffice transmission path between AT&T designated locations. Such locations may include GTE central offices or other equipment locations, AT&T network components, or other carrier network components.

8.1.1. GTE shall offer Dedicated Transport in each of the following ways:

8.1.1.1. As capacity on a shared circuit.

8.1.1.2. As a circuit (e.g., DS1, DS3, STS-1) dedicated to AT&T.

8.1.1.3. As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T. Prices and availability of systems will be provided by GTE using the bona fide request process set forth in Attachment 12 to this Agreement.

8.1.2. When Dedicated Transport is provided as a circuit or as capacity on a shared circuit, it shall include (as appropriate):

8.1.2.1. Multiplexing functionality;

8.1.2.2. [Intentionally Deleted]

8.1.2.3. [Intentionally Deleted]

8.1.3. To the extent Dedicated Transport is provided pursuant to this Agreement as a system, it shall include: Transmission equipment such as multiplexers, line terminating equipment, amplifiers, regenerators; and inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable. To the extent Dedicated Transport is provided as a system, the Parties shall work together to design that system (including but not limited to facility routing and termination points and facility routing over existing transport facilities between GTE and a second carrier to carry traffic designated for that carrier);

8.1.3.1. [Intentionally deleted.]

8.1.3.2. [Intentionally deleted.]

- 8.1.3.3. Redundant equipment and facilities necessary to support protection and restoration; and,
- 8.1.3.4. Dedicated Transport includes the Digital Cross-Connect System (DCS) functionality as an option. DCS is described below in Section 8.4.
- 8.2. **Technical References**
This Section sets forth technical references, subject to Section 23.19 of the General Terms and Conditions of this Agreement, for all Dedicated Transport.
- 8.2.1. When GTE provides Dedicated Transport as a circuit or a system, the entire designated transmission circuit or system (e.g., DS1, DS3, STS-1) shall be dedicated to AT&T designated traffic.
- 8.2.2. GTE shall offer Dedicated Transport in all then Currently Available technologies including, but not limited to, DS1 and DS3 transport systems, SONET (or SDH) Bi-directional Line Switched Rings, SONET (or SDH) Unidirectional Path Switched Rings, and SONET (or SDH) point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates.
- 8.2.3. For DS1 or VT1.5 circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay references specified for Customer Interface to Central Office "CI to CO" connections in the technical references listed in Appendix A to this Attachment 2, at paragraph 2.6 thereof.
- 8.2.4. For DS3 circuits, STS-1 circuits, and higher rate circuits, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay references specified for Customer Interface to Central Office "CI to CO" connections in the technical reference listed in Appendix A to this Attachment 2, at paragraph 2.13 thereof.
- 8.2.5. When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.
- 8.2.6. When physical diversity is requested by AT&T, GTE shall provide the maximum available physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).

- 8.2.7. Upon AT&T's request, GTE shall provide Real Time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.
- 8.2.8. GTE shall offer the following interface transmission rates for Dedicated Transport:
 - 8.2.8.1. DS1 (Extended SuperFrame - ESF, D4, and unframed applications shall be provided);
 - 8.2.8.2. DS3 (C-bit Parity, M13, and unframed applications shall be provided);
 - 8.2.8.3. SONET standard interface rates in accordance with ANSI T1.105 and ANSI T1.105.07 and physical interfaces per ANSI T1.106.06 (including referenced interfaces). In particular, VT1.5 based STS-1s will be the interface at an AT&T service node.
 - 8.2.8.4. SDH Standard interface rates in accordance with International Telecommunications Union (ITU) Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.704.
- 8.2.9. GTE shall provide cross-office wiring up to a suitable Point of Termination (POT) between Dedicated Transport and AT&T designated equipment. GTE shall provide the following equipment for the physical POT:
 - 8.2.9.1. DSX1 for DS1s or VT1.5s;
 - 8.2.9.2. DSX3 for DS3s or STS-1s; and
 - 8.2.9.3. LGX for optical signals (e.g., OC-3 and OC-12)
- 8.2.10. [Intentionally deleted]
- 8.2.11. [Intentionally deleted]
- 8.2.12. Upon AT&T's request, GTE shall provide AT&T with electronic provisioning control of Dedicated Transport purchased by AT&T and connected to a Digital Cross Connect System (DCS), if the DCS is capable of partitioned access and control.
- 8.2.13. [Intentionally deleted]

- 8.2.14. At a minimum, Dedicated Transport shall meet each of the references set forth in Section 7.2 and in the technical references listed in Appendix A to this Attachment 2, under paragraph 7 thereof.
- 8.3. Technical References for Dedicated Transport Using SONET technology.
- This Section sets forth additional technical references, subject to Section 23.19 of the General Terms and Conditions of this Agreement, for Dedicated Transport using SONET technology including rings, point-to-point systems, and linear add-drop systems.
- 8.3.1. All SONET Dedicated Transport provided as a system shall:
- 8.3.1.1. Be synchronized from both a primary and secondary Stratum 1 level timing source. Additional detail on synchronization references are given in Section 13.4.
- 8.3.1.2. Provide SONET standard interfaces which properly interwork with SONET standard equipment from other vendors. This includes, but is not limited to, SONET standard Section, Line, and Path performance monitoring, maintenance signals, alarms, and data channels.
- 8.3.1.3. Provide Data Communications Channel (DCC) or equivalent connectivity through the SONET transport system. Dedicated Transport provided over a SONET transport system shall be capable of routing DCC messages between AT&T SONET network components connected to the Dedicated Transport. For example, if AT&T leases a SONET ring from GTE, that ring shall support DCC message routing between AT&T SONET network components connected to the ring.
- 8.3.1.4. Support the following performance references for each circuit (STS-1, DS1, DS3, etc.):
- 8.3.1.4.1. No more than 10 Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Appendix A to this Attachment 2 at paragraph 7.5); and
- 8.3.1.4.2. No more than 1 Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical references set forth in Appendix A to this Attachment 2, at paragraph 7.5).

- 8.3.2. All SONET rings shall, subject to Section 23.19 of the General Terms and Conditions of this Agreement:
- 8.3.2.1. Be provisioned on physically diverse fiber optic cables (including separate building entrances where available and diversely routed intra-office wiring). "Diversely routed" shall be interpreted as the maximum feasible and available physical separation between transmission paths, unless otherwise agreed by AT&T.
 - 8.3.2.2. Support dual ring interworking per SONET Standards.
 - 8.3.2.3. Provide the necessary redundancy in optics, electronics, and transmission paths (including intra-office wiring) such that no single failure will cause a service interruption.
 - 8.3.2.4. Provide the ability to disable ring protection switching at AT&T's direction (selective protection lock-out). This reference applies to line switched rings only.
 - 8.3.2.5. Provide the ability to use the protection channels to carry traffic (extra traffic). This reference applies to line switched rings only.
 - 8.3.2.6. Provide 50 millisecond restoration unless a ring protection delay is set to accommodate dual ring interworking schemes.
 - 8.3.2.7. Have settable ring protection switching thresholds that shall be set in accordance with AT&T's specifications.
 - 8.3.2.8. Provide revertive protection switching with a settable wait to restore delay with a default setting of 5 minutes. This reference applies to line switched rings only.
 - 8.3.2.9. Provide non-revertive protection switching. This reference applies to path switched rings only.
 - 8.3.2.10. Be based upon the following availability references, where availability is defined in the technical reference listed in Appendix A to this Attachment 2, at paragraph 7.5 thereof.
 - 8.3.2.10.1. No more than 0.25 minutes of unavailability month; and
 - 8.3.2.10.2. No more than 0.5 minutes of unavailability per year.

8.4. Digital Cross-Connect System (DCS)

8.4.1. Definition:

When AT&T requests a functionality that GTE is required to provide to AT&T pursuant to this Agreement, GTE will provision this functionality at a level of quality equal to that which it provides to itself.

8.4.1.1. DCS is a function which provides automated cross connection of Digital Signal level 0 (DS0) or higher transmission bit rate digital channels within physical interface facilities. Types of DCSs include but are not limited to DCS 1/0s, DCS 3/1s, and DCS 3/3s, where the nomenclature 1/0 denotes interfaces typically at the DS1 rate or greater with cross-connection typically at the DS0 rate. This same nomenclature, at the appropriate rate substitution, extends to the other types of DCSs specifically cited as 3/1 and 3/3. Types of DCSs that cross-connect Synchronous Transport Signal level 1 (STS-1s) or other Synchronous Optical Network (SONET) signals (e.g., STS-3) are also DCSs, although not denoted by this same type of nomenclature. DCS may provide the functionality of more than one of the aforementioned DCS types (e.g., DCS 3/3/1 which combines functionality of DCS 3/3 and DCS 3/1). For such DCSs, the guidelines will be, at least, the aggregation of guidelines on the "component" DCSs.

8.4.1.2. In locations where automated cross connection capability does not exist, DCS will be defined as the combination of the functionality provided by a Digital Signal Cross-Connect (DSX) or Light Guide Cross-Connect (LGX) patch panels and D4 channel banks or other DS0 and above multiplexing equipment used to provide the function of a manual cross connection.

8.4.1.3. Interconnection between a DSX or LGX, to a switch, another cross-connect, or other service platform device, is included as part of DCS.

8.5. DCS Technical References. GTE shall provide DCS at the same level of quality as GTE provides in its own network. For example, DCS shall, where Currently Available:

8.5.1. Provide completed end-to-end cross connection of the channels designated by AT&T.

- 8.5.2. Perform facility grooming, multipoint bridging, one-way broadcast, two-way broadcast, and facility test functions.
- 8.5.3. Provide multiplexing, format conversion, signaling conversion, or other functions.
- 8.5.4. [Intentionally deleted.]
- 8.5.5. GTE shall continue to administer and maintain DCS, including updates to the control software to current available releases.
- 8.5.6. GTE shall, to the extent Currently Available, provide various types of Digital Cross-Connect Systems including:
 - 8.5.6.1. DS0 cross-connects (typically termed DCS 1/0);
 - 8.5.6.2. DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);
 - 8.5.6.3. DS3 cross-connects (typically termed DCS 3/3);
 - 8.5.6.4. STS-1 cross-connects; and
 - 8.5.6.5. Other Currently Available cross-connects designated by the Parties.
- 8.5.7. To the extent GTE provides such capability to itself, GTE shall provide in accordance with Section 8.2.12 of this Attachment 2, immediate and continuous configuration and reconfiguration of the channels between the physical interfaces.
- 8.5.8. To the extent GTE provide such capability to itself, GTE shall provide scheduled configuration and reconfiguration of the channels between the physical interfaces (i.e., GTE shall establish the processes to implement cross connects on the schedule designated by the Parties).
- 8.5.9. To the extent GTE provides such capability to itself, DCS shall continuously monitor protected circuit packs and redundant common equipment.
- 8.5.10. To the extent GTE provides such capability to itself, DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.

- 8.5.11. To the extent GTE provides such capability to itself, the underlying equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up.
- 8.5.12. To the extent GTE provides such capability to itself, GTE shall provide to AT&T spare facilities and equipment if ordered by AT&T, at AT&T's expense to the extent such costs are not included in the cost of the unbundled network element, necessary for provisioning repairs, and to meet AT&T's Direct Measures of Quality (DMOQs) as specified in the Provisioning and Maintenance sections.
- 8.5.13. To the extent GTE provides such capability to itself, GTE shall provide to AT&T upon AT&T's request, and at AT&T's expense to the extent such costs are not included in the cost of the unbundled network element, Real Time performance monitoring and alarm data on the signals and the components of the underlying equipment used to provide DCS that actually impact or might impact AT&T's services.
- 8.5.14. At AT&T's option and to the extent GTE provides such services to itself and is capable of providing such service to AT&T on a partitioned access and control basis, GTE shall provide AT&T with Real Time ability to initiate tests on integrated equipment used to test the signals and the underlying equipment used to provide DCS, as well as other integrated functionality for routine testing and fault isolation.
- 8.5.15. Where Currently Available, DCS shall provide SONET to asynchronous gateway functionality (e.g., STS-1 to DS1 or STS-1 to DS3).
- 8.5.16. Where Currently Available, DCS shall perform optical to electrical conversion where the underlying equipment used to provide DCS contains optical interfaces or terminations (e.g., Optical Carrier level 3, i.e., OC-3 interfaces on a DCS 3/1).
- 8.5.17. Where Currently Available, DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring.
- 8.5.18. Where Currently Available, DCS shall provide multipoint bridging of multiple channels to other DCSs. AT&T may designate multipoint bridging to be one-way broadcast from a single master to multiple tributaries, or two-way broadcast between a single master and multiple tributaries. Intentionally

deleted]

[Combinations]

- 8.5.19. Where Currently Available, DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by AT&T.
- 8.6. **DCS Interface References (subject to Section 23.19 of the General Terms and Conditions of this Agreement):**
- 8.6.1. GTE shall provide physical interfaces on DS0, DS1, and VT1.5 channel cross-connect devices at the DS1 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.
- 8.6.2. GTE shall provide physical interfaces on DS3 channel cross-connect devices at the DS3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.
- 8.6.3. GTE shall provide physical interfaces on STS-1 cross-connect devices at the OC-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU , and AT&T standards.
- 8.6.4. Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU , and AT&T standards.
- 8.6.5. DCS shall, at a minimum, meet all the references set forth in the technical references listed in Appendix A to this Attachment 12, under paragraph 8 thereof.
9. **Signaling Link Transport**
- 9.1. **Definition:**
Signaling Link Transport is a set of two or four dedicated 56 Kbps. transmission paths between AT&T-designated Signaling Points of Interconnection (SPOI) that provides appropriate physical diversity.

- 9.2. **Technical Guidelines (subject to Section 23.19 of the General Terms and Conditions of this Agreement):**
Signaling Link Transport shall consist of full duplex mode 56 kbps transmission paths. GTE shall provide Interfaces at the same level of quality as GTE provides in its own network:
- 9.3. Of the various options available, Signaling Link Transport shall perform in the following two ways:
- 9.3.1. As an "A-link" which is a connection between a switch and a home Signaling Transfer Point Switch (STPS) pair; and
- 9.3.2. As a "D-link" which is a connection between two STPS pairs in different company networks (e.g., between two STPS pairs for two Competitive Local Exchange Carriers (CLECs)).
- 9.4. Signaling Link Transport shall consist of two or more signaling link layers as follows:
- 9.4.1. An A-link layer shall consist of two links.
- 9.4.2. A D-link layer shall consist of four links.
- 9.4.3. A signaling link layer provided to AT&T pursuant to this Agreement shall perform at the same level of quality and performance levels as a similar signaling link layer in GTE's network. Examples of objectives may be:
- 9.4.3.1. There shall be no more than two minutes down time per year for an A-link layer; and
- 9.4.3.2. There shall be negligible (less than 2 seconds) down time per year for a D-link layer.
- 9.4.4. Where Currently Available, a signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment. Example objectives are:
- 9.4.5. No single failure of facilities or equipment causes the failure of both links in an A-link layer; and
- 9.4.6. No two concurrent failures of facilities or equipment shall cause the failure of all four links in a D-link layer.

- 9.5. **Interface References** GTE shall provide Interfaces at the same level of quality as GTE provides for Interfaces Currently Available in its own network. Subject to Section 23.19 of the General Terms and Conditions of this Agreement, such interfaces shall, for example, be based on but not limited to the following references:
- 9.5.1. There shall be a dedicated DS1 (1.544 Mbps) interface at the AT&T-designated SPOIs. Each 56 kbps transmission path shall appear as a DS0 channel within the DS1 interface.
10. **Signaling Transfer Points (STPs)**
- 10.1. **Definition:** Signaling Transfer Points is a signaling network function that includes all of the capabilities provided by the signaling transfer point switches (STPs) and their associated signaling links which enable the exchange of SS7 messages among and between switching elements, database elements and signaling transfer point switches.
- 10.2. **Technical References** GTE shall provide access to STPs at the same level of quality as GTE provides access to Currently Available STPs in its own network, subject to Section 23.19 of the General Terms and Conditions of this Agreement. For example:
- 10.2.1. STPs shall provide access to all other Network Elements connected to the GTE SS7 network. These include:
- 10.2.1.1. GTE Local Switching or Tandem Switching;
- 10.2.1.2. GTE Service Control Points/DataBases;
- 10.2.1.3. Third-party local or tandem switching systems; and
- 10.2.1.4. Third-party-provided STPs.
- 10.2.2. The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to those STPs on the GTE SS7 network. This explicitly includes the use of the GTE SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the GTE SS7 network (i.e., transient messages). When the GTE SS7 network is used to convey transient messages, there shall be no alteration of the Integrated Services Digital Network User Part (ISDNUP) or Transaction Capabilities Application Part (TCAP) user data that constitutes the content of the message.

- 10.2.3. If a GTE tandem switch routes calling traffic, based on dialed or translated digits, on SS7 trunks between an AT&T local switch and third party local switch, the GTE SS7 network shall convey the TCAP messages that are necessary to provide Call Management features (Automatic Callback, Automatic Recall, and Screening List Editing) between the AT&T local STPSs and the STPSs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to the GTE STPSs provided the third party's STPs and the AT&T local STPs are both connected to the GTE STPs to which the AT&T local switch is connected.
- 10.2.4. STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service. In cases where the destination signaling point is a GTE local or tandem switching system or data base, or is an AT&T or third party local or tandem switching system directly connected to the GTE SS7 network, STPs shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, STPs shall perform intermediate GTT of messages to a gateway pair of STPSs in an SS7 network connected with the GTE SS7 network, and shall not perform SCCP Subsystem Management of the destination.
- 10.2.5. When such capability is deployed in the GTE network, STPs shall provide all functions of the OMAP commonly provided by STPs, as specified in the reference set forth in Appendix A to this Attachment 2, at paragraph 9.5. This includes:
- 10.2.5.1. MTP Routing Verification Test (MRVT); and,
- 10.2.5.2. SCCP Routing Verification Test (SRVT).
- 10.2.6. This Section 10.2.6 applies when such capabilities are deployed in the GTE network. In cases where the destination signaling point is a GTE local or tandem switching system or DB, or is an AT&T or third party local or tandem switching system directly connected to the GTE SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPSs in an SS7 network connected with the GTE SS7 network. This reference shall be superseded by the specifications for Internetwork MRVT and SRVT if and when these become approved ANSI standards and available capabilities of GTE STPs.

- 10.2.7. AT&T and GTE agree to participate in the industry IN Forum "Interconnection and Access Group" project to address interconnection requirements for multiple third party AIN SCP access to GTE's switch triggers. AT&T and GTE recognize that actual commencement of tests under this project will be determined by all participants in the project.
- 10.3. **Interface References** GTE shall provide Interfaces at the same level of quality as GTE provides for Interfaces Currently Available in its own network, subject to Section 23.19 of the General Terms and Conditions of this Agreement. For example:
- 10.3.1. GTE shall provide the following STPs options to connect AT&T or AT&T-designated local switching systems or STPSs to the GTE SS7 network:
- 10.3.1.1. An A-link interface from AT&T local switching systems; and,
- 10.3.1.2. A D-link interface from AT&T local STPSs.
- 10.3.2. Subject to Section 23.19 of the General Terms and Conditions of this Agreement, each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:
- 10.3.2.1. An A-link layer shall consist of two links.
- 10.3.2.2. A D-link layer shall consist of four links.
- 10.3.3. [See Section 13.5.3.3 of this Attachment.]
- 10.3.4. [See Section 13.5.3.4 of this Attachment.]
- 10.4. **Message Screening**
- 10.4.1. GTE shall set message screening parameters so as to accept messages from AT&T local or tandem switching systems destined to any signaling point in the GTE SS7 network with which the AT&T switching system is connected and has a legitimate signaling relation.
- 10.4.2. GTE shall set message screening parameters so as to accept messages from AT&T local or tandem switching systems destined to any signaling point or network interconnected within the GTE SS7 network with which the AT&T switching system is connected and has a legitimate signaling relation.

- 10.4.3. GTE shall set message screening parameters so as to accept messages destined to an AT&T local or tandem switching system from any signaling point or network interconnected within the GTE SS7 network with which the AT&T switching system is connected and has a legitimate signaling relation.
- 10.4.4. GTE shall set message screening parameters so as to accept and send messages destined to an AT&T SCP from any signaling point or network interconnected to those STPs within the GTE SS7 network with which the AT&T SCP is connected and has a legitimate signaling relation.
- 10.5. STPs shall meet or exceed the references for STPs set forth in the technical references listed in Appendix A to this Attachment 2, under paragraph 9 thereof.

11. **Service Control Points/Databases**

11.1. **Definition:**

Databases are the Network Elements that provide the functionality for storage of, access to, and manipulation of information required to offer a particular service and/or capability.

- 11.1.1. A Service Control Point (SCP) is a specific type of Database Network Element functionality deployed in a Signaling System 7 (SS7) network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network. SCPs also provide operational interfaces to allow for provisioning, administration and maintenance of subscriber data and service application data. (e.g., an 800 database stores customer record data that provides information necessary to route 800 calls).

11.2. **Technical References for SCPs/Databases** (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

References for SCPs/Databases within this section address storage of information, access to information (e.g. signaling protocols, response times), and administration of information (e.g., provisioning, administration, and maintenance). All SCPs/Databases shall be provided to AT&T in accordance with the following references, except where such a reference is superseded by specific references set forth in Sections 11.3 to 11.7.

- 11.2.1. GTE shall make available physical interconnection to SCPs through the SS7 network and protocols, as specified in Section 10 of this Attachment, with TCAP as the application layer protocol.
- 11.2.2. Except for GTE's directory assistance databases, GTE shall provide physical interconnection to databases via industry standard interfaces and protocols. GTE will provide AT&T with copies of its directory assistance databases on magnetic tape. GTE will also provide to AT&T daily updates to its directory assistance databases on magnetic tape. AT&T and GTE shall agree on the type of magnetic tape, the format of the data on the tapes, the locations for delivery of the tapes, and all other implementation issues that the parties need to be resolved within ten days of the Effective Date of this Agreement. If the parties fail to reach agreement pursuant to this Section, the parties will submit the disputed issues to the alternative dispute resolution process as set forth in this Agreement.
- 11.2.3. The reliability of interconnection options shall be consistent with requirements for diversity and survivability as specified in Section 10 of this Attachment (which applies to both SS7 and non-SS7 interfaces).
- 11.2.4. [Intentionally deleted.]
- 11.2.5. GTE shall provide Database provisioning consistent with the provisioning requirements of this Agreement (e.g., data required, edits, acknowledgments, data format and transmission medium and notification of order completion).
- 11.2.6. GTE shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement.
- 11.2.7. GTE shall provide billing and recording information to track database usage consistent with connectivity billing and recording requirements as specified in this Agreement.
- 11.2.8. GTE shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.
- 11.2.9. GTE shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.
- 11.3. **Line Information Database (LIDB).**
This Subsection defines and sets forth additional references for the

Line Information Database.

11.3.1.

Definition:

The Line Information Database (LIDB) is a transaction-oriented database accessible through Common Channel Signaling (CCS) networks. It contains records associated with customer Line Numbers and Special Billing Numbers (in accordance with the references set forth in the technical reference listed in Appendix A to this Attachment 2, at paragraph 10.5.). LIDB accepts queries from other Network Elements and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between the GTE CCS network and other CCS networks. LIDB also interfaces to administrative systems. The administrative system interface provides Work Centers with an interface to LIDB for functions such as provisioning, auditing of data, access to LIDB measurements and reports.

11.3.2.

Technical References (subject to Section 23.19 of the General Terms and Conditions of this Agreement):

11.3.2.1.

Prior to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special Billing Number record, for which the NPA-NXX or NXX-0/1XX Group is supported by that LIDB.

11.3.2.2.

Prior to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special billing Number record, and NPA-NXX and NXX-0/1XX Group Records, belonging to an NPA-NXX or NXX-0/1XX owned by AT&T. The terms and conditions upon which such storage shall be made available to AT&T shall be set forth in a LIDB storage agreement to be entered into between the Parties.

11.3.2.3.

Subsequent to the availability of a long-term solution for Local Number Portability, GTE shall enable AT&T to store in GTE's LIDB any customer Line Number or Special Billing Number record, regardless of the number's NPA-NXX or NXX-0/1XX. The terms and conditions upon which such storage shall be made available to AT&T shall be set forth in a LIDB storage agreement to be entered into between the Parties.

- 11.3.2.4. GTE shall perform the following LIDB functions for AT&T's customer records in LIDB:
 - 11.3.2.4.1. Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls); and
 - 11.3.2.4.2. Calling Card Validation
- 11.3.2.5. GTE shall process AT&T's customer records in LIDB at least at parity with GTE customer records. With respect to other LIDB functions, GTE shall indicate to AT&T what additional functions (if any) are performed by LIDB in their network.
- 11.3.2.6. Within two (2) weeks after a request by AT&T, GTE shall provide AT&T with a list of the customer data items which AT&T would have to provide in order to support each required LIDB function. The list shall indicate which data items are essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.
- 11.3.2.7. [Intentionally deleted.]
- 11.3.2.8. [Intentionally deleted.]
- 11.3.2.9. [Intentionally deleted.]
- 11.3.2.10. GTE shall make changes to NPA-NXX and NXX-0/1XX Group Records, and Line Number and Special Billing Number Records associated with AT&T Customer, as requested by AT&T, within time frames at parity with those time frames in which GTE makes such changes for its own or any other carrier's customers.
- 11.3.2.11. In the event that end user customers change their local service provider, GTE shall maintain customer data (for line numbers, card numbers, and for any other types of data maintained in LIDB, excluding GTE-issued line based calling card numbers and associated PINs) so that such customers shall not experience any interruption of service due to the lack of such maintenance of customer data.
- 11.3.2.12. All additions, updates and deletions of AT&T data to the LIDB shall be solely at the direction of AT&T.

- 11.3.2.13. GTE shall provide priority updates to LIDB for AT&T data upon AT&T's request (e.g., to support fraud protection).
- 11.3.2.14. [Intentionally deleted.]
- 11.3.2.15. GTE shall perform backup and recovery of all of AT&T's data in LIDB in the same manner as GTE performs backup and recovery of GTE's data, including sending to LIDB all changes made since the date of the most recent backup copy.
- 11.3.2.16. GTE shall, to the extent GTE can partition LIDB measurements and reports, provide to AT&T access to LIDB measurements and reports at least at parity with the capability GTE has for its own customer.
- 11.3.2.17. To the extent GTE can partition LIDB measurements and reports, GTE shall provide AT&T with LIDB reports of data which are missing or contain errors, as well as any misroute errors to the degree and on the same schedule as GTE provides such reports to itself.
- 11.3.2.18. GTE shall prevent any access to or use of AT&T data in LIDB by GTE personnel or by any other party that does not have a need to know such information in order to provide services pursuant to this Agreement.
- 11.3.2.19. Where technically feasible and Currently Available, GTE shall provide AT&T performance of the LIDB Data Screening function, which allows a LIDB to completely or partially deny specific query originators access to LIDB data owned by specific data owners, (in accordance with the technical reference listed in Appendix A to this Attachment 2, at paragraph 10.5.) for Customer Data that is part of an NPA-NXX or NXX-0/1XX wholly or partially owned by AT&T at least at parity with GTE Customer Data. AT&T will provide GTE the screening information associated with LIDB Data Screening of AT&T data in accordance with this requirement.
- 11.3.2.20. GTE shall accept queries to LIDB associated with AT&T Customer records, and shall return responses in accordance with the references of this Section 11.
- 11.3.2.21. [Intentionally deleted.]
- 11.3.2.22. [Intentionally deleted.]